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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/872,857	06/04/2001	Kazuhiko Katakura	Q64653	1099

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EXAMINER

SAFAIPOUR, HOUSHANG

ART UNIT PAPER NUMBER

2622

DATE MAILED: 06/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/872,857

Applicant(s)

KATAKURA ET AL.

Examiner

Houshang Safaipoor

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 9 and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1, 2, 4, 6-8, 11, 13, 14, 16, 18-20, 23 and 24 are rejected under 35 U.S.C. 102(e) as being anticipated by Potucek et al. (U.S. Patent No. 6,437,358).

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Regarding claim 1, Potucek et al. discloses an image reading device comprising:

an illuminating section which emits visible light and infrared light and illuminates an original (fig. 2, col. 5 line 44 through col. 6, line 3);

an imaging section which images one of light transmitted through the original and light reflected by the original (fig. 10, col. 11, lines 15-37);

an image sensor which divides an image imaged by the imaging section into a plurality of pixels and reads the image and outputs the image as image data (col. 4 line 62 through col. 5 line 23);

a moving section which moves at least one of at least one portion of the imaging section, the image sensor, and the original, in an optical axis direction of the imaging section (col. 6, lines 4-14); and

a control section which, at each of a time of reading the image by the visible light and a time of reading the image by the infrared light, controls the moving section such that focus control is carried out by which an imaging position by the imaging section and a reading position of the image sensor coincide (col. 6, line 4 through col. 7, line 4).

Regarding claim 2, Potucek et al. discloses an image reading device according to claim 1, wherein on the basis of image data obtained by reading the image by the infrared light, the control section detects a position of at least one of scratch and foreign matter on the original, and on the basis of results of detection, corrects image data obtained by reading the image by the visible light (col. 8, line 50 through col. 9 line 26).

Regarding claim 4, Potucek et al. discloses an image reading device according to claim 2, wherein before correction of the image data obtained by reading the image by the visible light,

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the control section detects an image positional off set amount between the image data obtained by reading the image by infrared light and the image data obtained by reading the image by the visible light, and, on the basis of the positional offset amount, corrects one of the image data obtained by reading the image by the infrared light or the image data obtained by reading the image by the visible light such that the positional offset amount becomes minimum (col. 8, line 50 through col. 10 line 15).

Regarding claim 6, Potucek et al. discloses an image reading device according to claim 4, wherein the control section one of detects the positional offset amount in advance, and each time the image is read, corrects, on the basis of the positional offset amount, one of the image data obtained by reading the image by the infrared light and the image data obtained by reading the image by the visible light such that the positional offset amount becomes minimum, and each time the image is read, detects the positional offset amount, and corrects, on the basis of the positional offset amount, one of the image data obtained by reading the image by the infrared light and the image data obtained by reading the image by the visible light such that the positional offset amount becomes minimum (col. 8, lines 16-49).

Regarding claim 7, Potucek et al. discloses an image reading device according to claim 1, wherein the control section acquires in advance a focus position for a time of image reading by the visible light and a focus position for a time of image reading by the infrared light, by controlling the illuminating section and the moving section such that focus control in a case using each the visible light and the infrared light is carried out, and controls the moving section such that, at each time reading the image recorded on the original by the respective visible light and infrared light, at least one of at least one portion of the imaging section, the image sensor and

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the original moves to each position which is based on the respective focus positions acquired in advance (col. 5, line 36 through col. 6 line 21).

Regarding claim 8, Potucek et al. discloses an image reading device according to claim 1, wherein the control section acquires in advance a focus position for a time of image reading by one of the visible light and the infrared light, by controlling the illuminating section and the moving section such that focus control in a case using the one of the visible light and the infrared light is carried out, and controls the moving section such that, at a time of reading the image by the one of the visible light and the infrared light, at least one of at least one portion of the imaging section, the image sensor and the original moves to a position which is based on the focus position acquired in advance, and controls the moving section such that, at a time of reading the image by the another of the visible light and the infrared light, at least one of at least one portion of the imaging section, the image sensor and the original moves to a position which is offset, by a predetermined offset amount which is based on a design value of the imaging section, from the position which is based on the focus position acquired in advance (col. 5, line 36 through col. 10, line 15).

Regarding claim 11, Potucek et al. discloses an image reading device according to claim 1, wherein the illuminating section one of illuminates the original by selectively emitting the visible light and the infrared light (col. 5, line 44 through col. 6 line 3), and

illuminates the original by simultaneously emitting the visible light and the infrared light (col. 7, lines 5-9).

Regarding claims 13, 19 and 20, the arguments analogous to those presented for claim 1 are applicable to claims 13, 19 and 20.

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Regarding claims 14, 16 and 18, the arguments analogous to those presented for claims 2 and 4 are applicable to claims 14, 16 and 18 respectively.

Regarding claims 23 and 24, the arguments analogous to those presented for claim 1 are applicable to claims 23 and 24.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 5, 15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Potucek et al. (U.S. Patent No. 6,437,358).

Regarding claim 3, magnification chromatic aberration correction and distortion aberration correction on the image data obtained by reading the image by the infrared light are well known and routinely implemented in the art. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have these features performed by control section in Potucek's apparatus as an additional correction measures to improve image quality.

Regarding claim 5, Potucek et al. discloses an image reading device according to claim 3, wherein before correction of the image data obtained by reading the image by the visible light, the control section detects an image positional offset amount between the image data obtained by

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reading the image by infrared light and the image data obtained by reading the image by the visible light, and, on the basis of the positional offset amount, corrects one of the image data obtained by reading the image by the infrared light or the image data obtained by reading the image by the visible light such that the positional offset amount becomes minimum (col. 8, line 50 through col. 10 line 15).

Regarding claim 15, the arguments analogous to those presented for claim 3 are applicable to claim 15.

Regarding claim 17, the arguments analogous to those presented for claim 4 are applicable to claim 17.

Claims 10, 12 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Potucek et al. (U.S. Patent No. 6,437,358) and further in view of Oshima et al. (U.S. Patent No. 6,628,432).

Regarding claim 10, Potucek et al. does not explicitly disclose an image reading device according to claim 1, wherein the imaging section is provided with a transparent parallel plate which can change the imaging position by the imaging section by being inserted onto and withdrawn from a position on an optical axis of the imaging section, and the moving section inserts the transparent parallel plate onto and withdraws the transparent parallel plate from the position on the optical axis of the imaging section. Oshima et al. discloses such an apparatus (Abstract, col. 5, line 16 through col. 6 line 63). Therefore it would have been obvious to a person of an ordinary skill in the art at the invention was made to combine Oshima's apparatus with that of Potucek, because, this addition would improve focusing for reflective and translucent originals.

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Regarding claim 12, the arguments analogous to those presented for claims 1 and 10 are applicable to claim 12.

Regarding claim 22, the arguments analogous to those presented for claim 10 are applicable to claim 22.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Houshang Safaipoor whose telephone number is (703)306-4037. The examiner can normally be reached on Mon.-Thurs. from 6:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L Coles, Sr. can be reached on (703)305-4712. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Houshang Safaipoor
Patent Examiner
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April 10, 2004


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